

ABSTRACT

A method and apparatus for providing in-situ monitoring of the removal of materials in localized regions on a semiconductor wafer or substrate during chemical mechanical polishing (CMP) is provided. In particular, the method and apparatus of the present invention provides for detecting the differences in reflectance between the different materials within certain localized regions or zones on the surface of the wafer. The differences in reflectance are used to indicate the rate or progression of material removal in each of the certain localized zones.

10